TIP SHEET #5

Adjustable Scaffolding for Masonry Work

The Problem

Masons often need to stoop to pick up brick, block, and mortar and place them on a wall. This work can require a lot of bending and twisting of the body.

You have to bend deeper and twist your body more often if you keep materials below hip height, or lay brick or block on a section of wall below hip height.

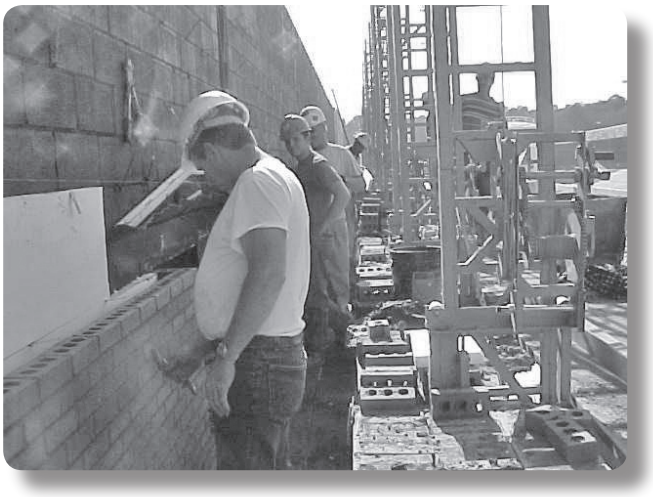
Frequent stooping causes fatigue and puts stress on your lower back. This stress increases your chance of developing low back pain or serious back injury. Your risk of injury is even higher if you also twist your body quickly, especially when holding heavy objects.

Problem: Conventional unguarded frame scaffolding

One Solution

Use **split-level adjustable scaffolding**. This allows a brick or block mason to stoop less because the materials and work surface are both kept near waist height, which is more comfortable and stresses your body less. Split-level adjustable scaffolds are available for jobs ranging from small single-story residential work to large high-rise building projects. This equipment may not be appropriate for all jobs.

Solution: Masons finish top course on split-level adjustable scaffolding



How It Works

Adjustable scaffolding has separate platforms for the worker and the materials. Since the worker platform can be raised or lowered, the materials and the work surface can both be positioned around the height of the worker's waist. Small scaffolds can be raised manually using hand jacks or a hand winch. Taller scaffolds can be raised using a powered winch.

Benefits for the Worker and Employer

Masons reduce their chance of developing low back pain or back injury. Workers spend less time handling materials because brick, block, and mortar are moved shorter distances. Workers expend less physical effort and report less fatigue at the end of the day. They also appreciate the wider platforms, which give more room to move around.

Mason tenders who build conventional frame scaffolds also get important benefits. Split-level adjustable scaffolds reduce the heavy physical labor involved in continuously changing the height of a frame scaffold. There is less lifting and carrying of frames and heavy boards, and less moving materials to the ground and back. Split-level adjustable scaffolds also reduce the danger of falling that mason tenders face when building frame scaffolds.

Measurable increases in productivity have been reported when split-level adjustable scaffolds are used. One study found that masons' productivity increased 20% when using the scaffolds, and some contractors have reported even greater increases in productivity.

Approximate Cost

Costs vary depending upon how the work platform is raised (manual vs. powered), the height of the masonry wall, and the overall size of the project. Heavy-duty scaffolding for three-story commercial work runs about $300 per lineal foot. Light-duty scaffolding for residential and light commercial work of the same height runs about $200 per lineal foot. Contractors who have used these systems say that productivity increases allow them to recover the cost, but actual benefits will vary.

For More Information

- Products related to this solution are described at *www.cpwr.com/simple.html*. Products also may be found on the internet using the following search terms: "adjustable scaffolding."
- Local contractor tool and equipment suppliers or rental companies may be another source of information on products.
- For general information on this solution, check *www.cpwrconstructionsolutions.org* and *www.elcosh.org*.